

Reviewer RITCHIE
Date 2-9-88

Form/Permit # 4652
Company Name KWB Oil Property Mgt.
Well # (b) (9)
Location [REDACTED]

TECHNICAL REVIEW

1093 / 5 669 / E (04)

Type Injection Well: (EOR/SWD/HC Storage) (New/Conversion) (Active/Inactive)

Injection: (Continuous/Cyclic)

Approximate # days operating/year _____
Rate (B/D): Average _____ Maximum _____
Wellhead pressure (psi): Average _____ Maximum _____
Fluid: TDS _____ Sp. Gr. _____ Analyses included: (yes/no) _____
Source (formation name) _____

Geologic Data (all references to depths are below land surface)

Base of Historical Usable Water: 4100' (SW/4-18-23-12)
Base of USDW and how determined: 4100' (SW/4-18-23-12)
Injection Interval: Top 1418'; Bottom 1555'; Effective Thickness 137'
Formation name Bartlesville Lithology SS.
Porosity (%) _____ Initial Reservoir Pressure _____ Date _____
Permeability (md) _____
Confining Zones: Thickness between injection zone and USDW -- 1318'
Lithology SS. LS. SH.
Cumulative shale _____; thickest shale zone _____ (interval)

Well Data: (all references to depths are below land surface)

Surface Elevation: 692 (KB/GL) Total Depth: 1555
Date Drilled or to be drilled: 9-21-35 Plugged Back Depth: 1555
Type logs available on (this well/offset well): (By reference/included) 9-21-35

Test data: (By reference/included) _____

Construction:	Size (in)	Depth Interval	Sacks of Cement	Hole Size	Cement Interval	How Determined
Surface Csg.	<u>10"</u>	<u>0-47</u>	<u>0</u>			
Intermediate Csg.						
Long String Csg.	<u>6 5/8"</u>	<u>0-1418</u>	<u>0</u>			
Liner						
Tubing	<u>2 3/8"</u>	<u>?</u>				

Packer type and depth ?

Type Cement = $\frac{\text{ft}^3}{\text{sx}} \times \frac{\# \text{ of } \text{sx}}{\text{total ft}^3 \text{ of cement}} \times \frac{\text{lin ft from tables}}{\text{lin ft of cement}}$

AOR (1/4 mile radius)

Map submitted: (yes/no) _____ Tabulation of Wells Submitted: (yes/no) _____
Faults Located: (yes/no); (none Present/Distance from injection well) _____
Number of wells in AOR: _____
Total _____ (Abandon _____; Production _____; Injection: SWD _____ EOR _____)
Number of wells in Zone of Endangering Influence: Total _____
Number of wells Requiring Corrective Action: Total _____ (list below) (SWD _____ EOR _____)

Well	Type Well	(SWD EOR Prod)	Problem	Corrective Action Required (Enter Code From Be)

Maximum Injection Pressure Calculation $P_m = (\text{Frac Gradient} - (0.433 \times \text{Sp.Gr.})) \text{ depth}$

$P_m = (0.75 - (0.433 \times \text{Sp.Gr.})) \times \text{depth} = \text{_____ (psi)}$

Technical Review (Passed/Failed) Passed #1

Corrective Action Code:
(1) Casing Repaired/Recemented
(2) Plugging/Abandonment of Active Wells
(3) Replugging of Abandoned Wells